

WHAT IS CLAIMED IS:

1. A method for supply of slurry for feeding slurry from a slurry supply tank for storing the slurry at a given concentration to a polishing apparatus for chemical mechanical polishing a polishing object by a slurry feed pump,

wherein an operation of the slurry feed pump is suspended during the period of time other than during the time of feeding the slurry to the polishing apparatus in process of polishing.

2. The method for the supply of the slurry as claimed in claim 1, wherein the slurry discharged from the slurry supply tank by means of the slurry feed pump is all fed to the polishing apparatus in process of polishing.

3. A slurry feeder comprising:

a slurry supply tank for storing slurry at a given concentration;

a slurry feed pipe for feeding the slurry from the slurry supply tank to a polishing apparatus by means of a slurry feed pump; and

a control system for suspending an operation of the slurry feed pump for feeding the slurry to the polishing apparatus during the period of time other than during the time of feeding the slurry to the polishing apparatus in process of polishing.

4. The slurry feeder as claimed in claim 3, wherein a plurality of turntables for use with the polishing apparatus are located and the slurry feed pump is disposed

each for the turntables.

5. The slurry feeder as claimed in claim 3, wherein the slurry feeder is provided with an preparation tank for feeding slurry adjusted at a given concentration to the slurry supply tank by mixing a stock solution of the slurry with a deionized water or a chemical liquid; and

the control system suspends the circulating operation for returning the slurry discharged from the preparation tank to the preparation tank and the stirring operation of stirring the slurry in the preparation tank during the period of time other than during the time of adjustment by diluting the slurry in the preparation tank.

6. The slurry feeder as claimed in claim 3, wherein a portion of the slurry supply tank connected to the slurry feed pipe is disposed so as to cause no discharging a slurry agglomerate settled to the bottom portion of the slurry supply tank into the slurry feed pipe by locating an outlet for discharging the slurry

7. The slurry feeder as claimed in claim 4, wherein the slurry feeder is provided with an preparation tank for feeding slurry adjusted at a given concentration to the slurry supply tank by mixing a stock solution of the slurry with a deionized water or a chemical liquid; and

the control system suspends the circulating operation for returning the slurry discharged from the preparation tank to the preparation tank and the stirring operation of stirring the slurry in the preparation tank during the period of time other than during the time of adjustment by

diluting the slurry in the preparation tank.

8. The slurry feeder as claimed in claim 4, wherein a portion of the slurry supply tank connected to the slurry feed pipe is disposed so as to cause no discharging a slurry agglomerate settled to the bottom portion of the slurry supply tank into the slurry feed pipe by locating an outlet for discharging the slurry

9. A slurry feeder for feeding a given slurry to a polishing apparatus, comprising:

a slurry supply tank for storing said slurry to be fed to said polishing apparatus;

wherein said slurry is fed at a flow rate  $Q$  from said slurry supply tank to said polishing apparatus; and wherein, when a sedimentation velocity of polishing particles in said given slurry is indicated by  $V$ , a horizontal sectional area of said slurry supply tank is set to become smaller than  $Q/V$ .

10. A polishing apparatus comprising the slurry feeder as claimed in claim 7;

a polishing table to which a slurry is fed from said slurry feeder; and

a slurry-returning path for returning a portion of the slurry fed from said slurry feeder, which is not used for said polishing table, to said slurry supply tank.

11. A method for the operation of a slurry feeder having a slurry supply tank for storing a given slurry to be fed to a polishing apparatus,

wherein a flow rate of said given slurry to be fed

from said slurry supply tank to said polishing apparatus is set in such a manner that a flow velocity of said slurry in said slurry supply tank becomes faster than a sedimentation velocity of polishing particles in said given slurry.